

45. A network device, comprising:

a plurality of ports capable of being connected to external physical network attachments and capable of being programmed as test ports or working ports.

46. The network device of claim 45, wherein the physical layer subsystem transfers network data in accordance with SONET protocol.

47. The network device of claim 45, wherein at least one of the plurality of ports is programmed as a test port and at least one of the plurality of ports is programmed as a working port and the physical layer subsystem further includes:

a cross-connection subsystem for multicasting network data to the test port and the working port.

48. The network device of claim 47, wherein the test port is a first test port and another one of the plurality of ports is programmed as a second test port and wherein the cross-connection subsystem is capable of multicasting the network data to the working port, the first test port and the second test port.

49. The network device of claim 47, wherein the working port is a first working port and another one of the plurality of ports is programmed as a second working port and wherein the cross-connection subsystem is capable of transferring the network data between the first and second working ports and for multicasting the network data to the test port.

50. The network device of claim 45, wherein at least one of the plurality of ports is programmed as a working port and at least one of the plurality of ports is programmed as a test port and the physical layer subsystem further includes:

a cross-connection subsystem for transferring the network data from the test port to the working port.

B1
Cont.

51. A network device, comprising:

a physical layer subsystem including a plurality of ports capable of being connected to physical network attachments, wherein the plurality of ports include at least one working port and at least one test port; and

a cross-connection subsystem coupled to the physical layer subsystem and capable of being programmed to transfer the network data to the working port and to the test port.

B1
Cond.

52. A network device, comprising:

a physical layer subsystem including a plurality of ports; and

a cross-connect subsystem coupled to the physical layer subsystem and capable of being configured to implement at least one of the plurality of ports as a working port and at least another of the plurality of ports as a test port.

53. The network device of claim 52, wherein the cross-connect subsystem is capable of multicasting network data to the working port and the test port.
